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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,963	09/29/2003	Gurtej Singh Sandhu	303.693US2	5281

7590 10/29/2004

Schwegman, Lundberg, Woessner & Kluth, P.A.
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EXAMINER

NOLAND, THOMAS

ART UNIT PAPER NUMBER

2856

DATE MAILED: 10/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/674,963

Applicant(s)

SANDHU ET AL.

Examiner

Thomas P. Noland

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-38 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 09292003.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-25, drawn to a gate position sensor, a system including a gate position sensor, or a semiconductor manufacturing system including a gate position sensor, classified in class 29, subclass 25.01.
- II. Claims 26-29, drawn to a method, classified in class 137, subclass 1.
- III. Claims 30-34, drawn to a semiconductor processing method for delivering a semiconductor gas, classified in class 438, subclass 14.
- IV. Claims 25-38, drawn to a method for detecting a gas flow failure in a semiconductor manufacturing process, classified in class 73, subclass 865.9.

3. The inventions are distinct, each from the other because:

Inventions Groups 2-4 considered together and Group 1 are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either:

(1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus of claims 1-20 of Group 1 could be used to practice another and materially different process than that of groups 2-4 such as one not using an ultrasonic mass flow line as in group 2 or in a semiconductor manufacturing process as in groups 3-4, etc. The process of groups 2-4 could be practiced with another and materially different apparatus than that of claims 21-25 of group 1 such as for group 2 one other than for a semiconductor manufacturing system having a semiconductor gas line or for all of groups 2-4 one not requiring a processor for controlling gate position. Instead the control could be an operator monitoring the signal, etc.

4. Inventions group 2 and each of groups 3 and 4 are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because it does not require determining whether the gate is open or closed as in group 3 as evidenced by such only being claimed in dependent claim 28 of group 2 and it does not require detecting gate operability as in group 4. The subcombination has separate utility such

as use in semiconductor processing without necessarily oscillating the gate at a desired frequency as in group 2.

5. Inventions Group 4 and Group 3 are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because it does not require determining whether the gate is open or closed as in group 3 as evidenced by such on being claimed in dependent claim 38 of group 4. The subcombination has separate utility such as use as a semiconductor processing without necessarily detecting gate operability per se as in group 4, etc.

6. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

7. Because these inventions are distinct for the reasons given above and the search required for Group 1 is not required for Groups 2-4, etc., restriction for examination purposes as indicated is proper.

8. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

9. If groups 1 or 3 are elected*, or if groups 2 or 4 are elected with traverse of the restriction out of groups 1 or 3, the following election of species materials be made* (to the extent covered by the traverse.)

This application contains claims directed to the following patentably distinct species of the claimed invention: The 1st species is where a gate position sensor like that illustrated in fig. 2 is used and is currently believed to be read on by claims 2, 6, 16, and 22 of Group 1 and claim 31 of group 3. The second species is where a gate position sensor like those illustrated in figs. 3 or 4 is used and is currently believed to be read on by claims 3, 7-11, 17 and 23 of group 1 and claim 32 of group 3. The third species is where a gate position sensor like that illustrated in fig. 5 is used and is currently believed to be claimed in claims 4, 12, 18 and 24 of group 1 and claim 33 of group 3. The 4th species is one where a gate position sensor like that illustrated in fig. 6 is used and is currently believed to be claimed in claims 5, 13-14, 19 and 25 of group 1 and claim 34 of group 3.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claim is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim

is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

10. If group 1 is elected claims 1, 15, and 20-21 will be examined with which ever species is elected.

11. If group 3 is elected claim 30 will be examined with which ever species is elected.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Noland whose telephone number is (571) 272-2202. The examiner can normally be reached on weekdays from 9:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Hezron E. Williams, can be reached on (571) 272-2208.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

10/28/04
Thomas P. Noland
Primary Examiner
Art Unit 2856

Noland/ds

10/26/04

